

PB #7
TMZ
12/13/01
PCT09

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/806,197

DATE: 08/30/2001
TIME: 06:41:34

Input Set : A:\73727091.app
Output Set: N:\CRF3\08302001\I806197.raw

ENTERED

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 60 <210> SEQ ID NO: 2
 61 <211> LENGTH: 851
 62 <212> TYPE: DNA
 63 <213> ORGANISM: Daucus carota
 65 <400> SEQUENCE: 2
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 67 ctgaaggact agcggAACCT gaaactgggt ctcagaagag gatcacctac gagcaagtga 120
 68 agaaaatggc aactttattt gatgacttgg tggatattt tgagaattac aactttgcag 180
 69 aaaagccAAC tctgcggTTT caggTTCTGG aattaattaa gctttacat cactatggaa 240
 70 gtgatactat tcgaaggcga gtggaggaag aacttggat cgtgaatgag aaaaattcag 300
 71 caacacagta caagaaagct ctggaagtaa tggttagat atgcaataag gagaatacgg 360
 72 ggatacgtca aagtatttt tacgacacaa tagaaaaggc agaaaggat aaagtgcct 420
 73 atgaatggg aggaattggg acggTTTgg tttagctaaa aaaagtgact tcttacttga 480
 74 agtaatgaag tggagtagaa ctgataagta aagtaataat tataagttat taaagtgttt 540
 75 ggaaaagaaa tagaaggTGT aaagaaaagt tagcattttc tacttccaaC ttatttctca 600
 76 cgacttctta aaagtacttc ttactttttt acacaaacgg gtcaaggaaa gtggaaagcaa 660
 77 aaagctggag ttacttctta taagaatgtt tatactaaat gagaatgac aaacacagaa 720
 78 atgagaatga atatgattat tggTTTataa atagtgtatt ttatTTaaa agatcgcata 780
 79 cattaccagc cagatgaagt tattcatcac aactcacaac aaagtacaaa gaaaaagttg 840
 80 caattctgtc a 851
 83 <210> SEQ ID NO: 3
 84 <211> LENGTH: 2048
 85 <212> TYPE: DNA
 86 <213> ORGANISM: Daucus carota
 88 <400> SEQUENCE: 3
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 90 cttcttcTTTtggacctg ttgtataaa gaagtagaaa tattttaaa aagctgcgaa 120
 91 tactaacttc tctctcacaa ctccgcTTTC ttttccaaac actttattaa ctttttact 180
 92 tctcatttct actccacttc ttgtctataa gcaagaaatc acttctttt agctaaccac 240
 93 aacggcctca ataaaagatc attcataaaat gtatcttca attttaggat aacaatacgt 300
 94 gaacagggtt atttttaac gtgtcaacaa attctaataa ttttacctgg ccggTgaaca 360
 95 ccgtcttcca agataatata ttttaatttt gtgcctccc ttttaaccaa attcgcattc 420
 96 aggacgactt aggtgaatac acattgtact gtgagtctt aaacaaagaa caagtggttc 480
 97 atgctcagcc atcaaaattt acaaaacccg acacaacact ctatccacgt actatacttt 540
 98 tggccgaatg cttctcaaaa tggTTTTat atgtaaaata atgcccattcc aaggataagt 600
 99 aaaattcccg tttAACCAgT ttgttaatat atatgtttac acttacaaga ggatattcgt 660
 100 aatacttttta gacgacaaga gacttaggtc aaaaatggac gctggtaaac agcctagact 720
 101 tggTcaCTGA taaatagata attgttaga taatatagtt ggtatctacaa tgacattaaa 780
 102 attagagcta ttaattaagt tactaataaa taagagaggt tagtaaacag aaagcaggta 840
 103 aaaaacaagag cttgtgtcgt tggTTTtagt tggTTgtcat ttctttaaa gtaatgtaaa 900
 104 ctgatctaa gcacatagaa atttagtaca ggttaaaact tttacaagaa tttatattaa 960
 105 acgaaaatca tttataaca tggTCTCTGG ctgtcattat aatagggtc acttactgt 1020
 106 catccattaa aacctgtta aaacaaatTC aatgagataa aatatcttac aatgaaaaga 1080
 107 aggacaatgt ctcttggaaa aaacaaatag gtactccCTC cgtccctctg aatgtatac 1140
 108 atatggattt gacacggaga ctaagaaaaa tggTaaagt aatgttagat aaaaagaaag 1200
 109 agaaagaaaaa gtggTaaag tagcgggacc caccaatata taattgatag atttagaaaa 1260
 110 gtagttgaaa gtagtgggtg ggtgggattt ttatattata aaaatttact attttgagaa 1320
 111 agttttgaaa tggatagaat tggatggac atccataaaa gggaaagtgtt tagaattaaa 1380

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112 tgggacagag ggagtaatac ctttatgata tataaatttt tggttatttg atttcataag 1440
 113 attataaattc tatgttataa tgataatata atttaaaaaa taatactata ttaattctga 1500
 114 ttagtcgatt accgccttt ataattttac aatactgagt aatatgaata aatcagttat 1560
 115 ctgaaaagca aataatatct ttgtaaaaca gcgttgcgtc aatggaaag ttcatgtgta 1620
 116 ttcaatagtt ttaatataaa agtaaatttt aaattaattt ttatgggtt ttcagaaatt 1680
 117 taaaataaaat tattgagcat gggaaagttca cgggcattcat tgagcagcac tagactgtt 1740
 118 gaacaatgtt tgcgtgtgt acatctatga ctttcaact caaactagt aataatgtt 1800
 119 tctagaatac atctttcaa atttcaacaa acacagctt aactttctt tcaacggatt 1860
 120 ggaatcctt tctaaacttt taaaataaa aaaaatgtt tattgttataa tttatcaaca 1920
 121 cctcaacattt gatgttagcg tactataat aggtgctctt ggtgctctac tatttcac 1980
 122 tcaatcttac accacaaacc ttgagcttaa ttttctact tatttcacg aatcacattc 2040
 123 taaagatc 2048
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 127 <211> LENGTH: 2048
 128 <212> TYPE: DNA
 129 <213> ORGANISM: Daucus carota
 131 <400> SEQUENCE: 4
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 133 ctttttttcc ttttgacctg tttgtataaa gaagtagaaa tttttttaaa aagctgcgaa 120
 134 tactaacttc tctctcacaa cttccgccttc ttttccaaac acttttattaa cttttttact 180
 135 tctcattttt actccacttc tttgttataaa gcaagaaatc acttcttttta agctaacc 240
 136 aacggcctca ataaaagatc attcataat gtatcttca atttttaggat aacaatacgt 300
 137 gaacagggtt atttttttaac gtgtcaacaa attctaataa ttttacctgg ccggtaaca 360
 138 ccgtcttcca agataatata tttttaatttt gtgcctccc tttttaaccaa attcgcagga 420
 139 cgacttaggtt gaatacacat tttttttttt gttttttttt aaagaacaag tggttcatgc 480
 140 tcaagccatca aaatttgcacaa aaccgcacac aacactctat ccacgtacta tactttggc 540
 141 cgaatgcttc tcaaaatgtt ttttatatgtt aaaaataatgc ccatccaagg ataagtaaaa 600
 142 ttcccgttta accagttgtt taatataat ttttacactt acaagaggat attcgttataa 660
 143 ctttttagacg acaagagact taggtcaaaa atggacgctg gtaaacagcc tagacttgg 720
 144 cactgataaa tagataattt ttagtataat atagtaggat ctacaatgtt attaaaattt 780
 145 gagctattaa ttaagttact aataaataaag agaggtagt aaacagaaaag caggtaaaaa 840
 146 caagagcttgc tgcgtgtgt tttttttttt gtgcgttcat ttctttttttt gtaatgtt 900
 147 ctgtatctaaa gcacatagaa atttagtaca gttttttttt ttacaagaa tttatattaa 960
 148 acgaaaatca ttttataaca tttttttttt ctgttcttgc ctgttattttt aataggatc acttactgt 1020
 149 catccattaa aacctgttta aacaaatcc aatggatata aatattttttt aatggaaaaga 1080
 150 aggacaatgtt ctctttttttt aacaaatag gtactcccttc cgtccctctg aatgttatac 1140
 151 atatggattt gacacggaga ctaagaaaaaa tttttttttt aatgttatac aatggatc 1200
 152 agaaaagaaaaa gtgggtttttt tagcgggacc cccatata taattttttt atttttttttt 1260
 153 gtagttttttt gtagttttttt gttttttttt ttatattata aaaaattttttt atttttttttt 1320
 154 agttttttttt gttttttttt tttttttttt tttttttttt tttttttttt tttttttttt 1380
 155 tgggacagag ggagtaatac ctttatgata tataaatttt tggttatttg atttcataag 1440
 156 attataaattc tatgttataa tgataatata atttaaaaaa taatactata ttaattctga 1500
 157 ttagtcgatt accgcctttt ataattttac aatactgagt aatatgaata aatcagttat 1560
 158 ctgaaaagca aataatatct ttgtaaaaca gcgttgcgtc aatggaaag ttcatgtgta 1620
 159 ttcaatagtt ttaatataaa agtaaattttt aaattaattt ttatgggtt ttcagaaatt 1680
 160 taaaataaaat tattgagcat gggaaagttca cgggcattcat tgagcagcac tagactgtt 1740
 161 gaacaatgtt tgcgtgtgt acatctatga ctttcaact caaactagt aataatgtt 1800
 162 totagaatac atctttcaa atttcaacaa acacagctt aactttctt tcaacggatt 1860
 163 ggaatcctt tctaaacttt taaaataaa aaaaatgtt tattgttataa tttatcaaca 1920

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164 cctcaacatt gatgttagcg tactataaat aggtgctctt ggtgctctac tatcatcaca 1980
165 tcaatcttac accacaaacc ttgagcttaa ttttctact tattctcagc aatcacattc 2040
166 taaaagatc 2048
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170 <211> LENGTH: 2056
171 <212> TYPE: DNA
172 <213> ORGANISM: Daucus carota
174 <400> SEQUENCE: 5
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177 tactaacttc tctctcacaa cttccgcgttc ttttccaaac actttattaa ctttttact 180
178 tctcatttct actccacttc tttgtataa gcaagaaatc acttcttttta agctaaccct 240
179 aacggcctca ataaaaagatc attcataaat gtatcttca attttagat aacaatacgt 300
180 gaacagggtt atttttaac gtgtcaacaa attctaataa ttttacctgg ccggtaaca 360
181 ccgtcttcca agataatata ttttaatttt gtagcctccc ttttaaccaa attcgcatgc 420
182 aggacgactt aggtgaatac acattgtact gtgagtcttt aaacaaagaa caagtggttc 480
183 atgctcagcc atcaaaaattt gaaaaaccgg acacaacact ctatccacgt actatacttt 540
184 tggccgaatg cttctcaaaa tgggtttat atgtaaaata atgcccattt aaggataagt 600
185 aaaaattcccg ttttaaccagt ttgttaatata atatgttac acttacaaga ggttattcgt 660
186 aataacttttta gacgacaaga gacttaggtc aaaaatggac gctggtaaac agcctagact 720
187 tggtaactga taaatagata attgttagta taatatagtt ggttctacaa tgacattaaa 780
188 attagagcta ttaattaagt tactaataaa taagagaggt tagtaaacag aaagcaggt 840
189 aaaaacaagag cttgctgctg tgggtttat tgggttgagc tcatttctt aaaaatgt 900
190 taaactgatc taaagcacat agaaatttag tacaggttaa aacttttaca agaatttata 960
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192 tgatcatcca ttaaaacctt gttaaaacaa attcaatgag ataaaatata ttacaatgaa 1080
193 aagaaggaca atgtctctt gaaaaaaacaa ataggtaactc cttccgtccc tctgaaatgt 1140
194 atacatatgg attggacacg gagactaaga aaaaatgtata aagtaatgtt ggtttttttt 1200
195 aaaaagaaaag aaaaatgggtt aaaaatgggtt gacccaccaa tatataattt atagatttt 1260
196 aaaaatgtt gaaatgtt ggtgggtggg attttttat tataaaaatt tactattttt 1320
197 aaaaatgtttt gaaatgtata gaattgttgg ggtttttttt ggtttttttt ggtttttttt 1380
198 taaaatggac agagggatgtt atacctttat gatataaaa tttttttttt tttttttttt 1440
199 taagattata aatctatgtt ataatgataa tataattttt aaaaataatac tatattttttt 1500
200 ctgatttagtc gattaccgccc ttttataatt ttacaataact gagtaatatg aataaaatcg 1560
201 ttatctgaaa agcaaaataat atctttgttaa aacagcggttc ggtcaaatgg gaagttcatg 1620
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203 aattttaaaat aaattttatgtt gcatgggaag ttccacggca tcatttgagca gcacttagact 1740
204 gtttgaacaa tggatgtccg ggttacatct atgaccttc aactcaaact agtgaataat 1800
205 gcatcttgc tagataatcat cttttcaaat ttcaacaaac acagctttaa cttttcttc 1860
206 aacggattgg aatcccttttcaacaaatgtttt aaaaatggggaaatgtt ggtttttttttt 1920
207 tatacaacacc tcaacattgtt tggatgtccg tttttttttt aaaaatggggaaatgtt ggtttttttttt 1980
208 tcatcacatc aatcttacac cacaaacccctt gagcttattt tttttttttt tttttttttt 2040
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213 <211> LENGTH: 739
214 <212> TYPE: DNA
215 <213> ORGANISM: Daucus carota
217 <220> FEATURE:
218 <221> NAME/KEY: CDS

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221 <400> SEQUENCE: 6
222 cattctaaat atc atg ggt gcc cag agc cat tca ctc gag atc act tct 49
223 Met Gly Ala Gln Ser His Ser Leu Glu Ile Thr Ser
224 1 5 10
226 tca gtc tcc gca gag aaa ata ttc agc ggc att gtc ctt gat gtt gat 97
227 Ser Val Ser Ala Glu Lys Ile Phe Ser Gly Ile Val Leu Asp Val Asp
228 15 20 25
230 aca gtt att ccc aag gct gcc ccc gga gct tac aag agt gtc gat gtt 145
231 Thr Val Ile Pro Lys Ala Ala Pro Gly Ala Tyr Lys Ser Val Asp Val
232 30 35 40
234 aaa gga gac ggt gga gct gga acc gtc aga att atc acc ctt ccc gaa 193
235 Lys Gly Asp Gly Gly Ala Gly Thr Val Arg Ile Ile Thr Leu Pro Glu
236 45 50 55 60
238 ggt agc cca atc acc tca atg acg gtt agg act gat gca gtg aac aag 241
239 Gly Ser Pro Ile Thr Ser Met Thr Val Arg Thr Asp Ala Val Asn Lys
240 65 70 75
242 gag gcc ttg aca tac gat tcc aca gtc att gat gga gac atc ctt cta 289
243 Glu Ala Leu Thr Tyr Asp Ser Thr Val Ile Asp Gly Asp Ile Leu Leu
244 80 85 90
246 gaa ttc atc gaa tcc att gaa acc cat atg gta gtt gtg cca act gct 337
247 Glu Phe Ile Glu Ser Ile Glu Thr His Met Val Val Val Pro Thr Ala
248 95 100 105
250 gac gga ggt agc att acc aag acc act gcc ata ttc cac acc aaa ggc 385
251 Asp Gly Gly Ser Ile Thr Lys Thr Ala Ile Phe His Thr Lys Gly
252 110 115 120
254 gat gcc gtg gtt cct gag gag aac atc aag ttt gca gat gct cag aac 433
255 Asp Ala Val Val Pro Glu Glu Asn Ile Lys Phe Ala Asp Ala Gln Asn
256 125 130 135 140
258 act gct ctt ttc aag gct att gag gcc tac ctc att gct aat 475
259 Thr Ala Leu Phe Lys Ala Ile Glu Ala Tyr Leu Ile Ala Asn
260 145 150
262 taagctgagc tctcaacttc cgtaattttt tgagttagtg gaggaattgc aacgttttct 535
264 tttgtgtttt gttttcgagc aacttcataa tttacagagt gagtgacagt cagtgacaga 595
266 attgcaactt tctctttgtt ctttgggttg acttggatg aataacttca tctggctgg 655
268 aatgtatgcg atcttttaa ataatatgca ctattattaa accaataatc atattcattc 715
270 tcaaaaaaaaaaaaaaaa aaaa 739
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281 taactaacttc tctctcacaa cttccgccttc ttttccaaac actttattaa cttttttact 180
282 tctcatttct actccacttc tttgctataa gcaagaaatc acttcttttta agctaaccct 240
283 aacggcctca ataaaagatc attcataat gatatcttca attttaggt aacaatacgt 300
284 gaacaggggtt atttttaac gtgtcaacaa attctaataa ttttacctgg ccggtaaca 360
285 ccgtcttcca agataatata ttttaatttt gtagcctccc ttttaaccaa attcgcatgc 420

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